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UT's new boat set for algae, lake research

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Associate Professor of Ecology Thomas Bridgeman shows the University of Toledo's new research vessel at the National Museum of the Great Lakes on Thursday.

There's a new 28-foot, water-worthy weapon in the scientific war against Lake Erie algae.

The University of Toledo on Thursday dedicated a custom-made boat used by researchers at its Lake Erie Center near the Maumee Bay shoreline in Oregon.

The vessel, built in eight months by North River Boats/Almar Boats in Roseburg, Ore., will take scientists and students to spots around Lake Erie where they will collect water samples, track harmful algal blooms, and study invasive species and other issues of concern to the Great Lakes.

UT paid \$350,000 for the boat, research equipment, and safety gear.

The boat cost \$250,000 and the instruments, equipment, and other gear on board cost \$100,000, university officials said.



PHOTO GALLERY: [UT's new Great Lakes research vessel](#)

Thomas Hodges, left, building operator, looks out over the new lab area in the University of Toledo's new 28-foot research vessel during a dedication ceremony at the National Museum of the Great Lakes.

Among the gear the university bought for the boat is a hydroacoustic imaging system to detect and identify fish.

The boat also has a drone with several cameras, including an infrared camera, which can be used to study algae blooms and track the source of their nutrients.

Work to procure the new boat began several years ago, before last August's water crisis caused by toxic Lake Erie algal blooms fouled Toledo's drinking water supply.

Since then, concern has grown about the lake's health, and the boat will aid UT researchers who have long studied water quality.

"All eyes are on Lake Erie right now as we monitor this season's algal bloom and its potential to impact Toledo's drinking water. After the water emergency last year, the community's interest in the health and quality of lake water is heightened, and it's looking to experts for guidance," said UT President Sharon Gaber.

She made her remarks during a dedication ceremony at the National Museum of the Great Lakes along the Maumee River.



Thomas Bridgeman, left, and graduate student Ken Gibbons, right, give Department of Higher Education Chancellor John Carey a look at the state-of-the-art technology inside the vessel.

The new aluminum boat is larger and sturdier than the university's previous research vessel, and it has an enclosed cabin to protect the crew, so researchers can use it even when it's cold and rainy, and in much choppier waves.

The enclosed lab space has outlets to plug in laptops. The boat offers more deck space, lights for night use, and radar and GPS navigational systems, among other amenities.

Better safety gear

The boat also has enhanced safety gear, such as radar and a spotlight and power anchor windlass, which will allow for a longer research season and evening sampling if needed.

Researchers will continue to use the center's older boat, a 25-foot fiberglass vessel dubbed the Mayflyer.

Thomas Bridgeman, associate professor of ecology, is among researchers who use the new boat.

He recently took it out to launch a buoy about 7 miles out from the city's water intake location to monitor blue-green algae.

Collect samples

Each week, he and a handful of students visit sites on Lake Erie to collect water samples to bring back for processing and take readings with instruments. Some of their cruises cover 50 miles of water.

This is his 14th year conducting Lake Erie research. He and others are paying close attention to this summer's conditions.

“Given the amount of flow from the Maumee River and the amount of phosphorus coming down the Maumee River, we are due for a very large algal bloom this year,” Mr. Bridgeman said.



Dr. Carol Stepien, University of Toledo professor of ecology and director of the Lake Erie Center, left, shakes hands with UT President Sharon Gaber, right, while Ohio Department of Higher Education Chancellor John Carey, center, stands nearby.

However, if it keeps raining and the river continues to flood, it will push the algae further out into the lake, he said. “The rain, at this point, is almost helping us because it keeps flushing the bay,” he said.

‘How lucky we are’

The boat, trimmed in shades of UT’s midnight blue and gold colors and bearing the university’s logo, is a welcome addition, he said.

“My students and I, every time we go out there, we’ve got a smile on our face. We just can’t believe how lucky we are to have this boat,” Mr. Bridgeman told a crowd that included Ohio Department of Higher Education Chancellor John Carey and Toledo Mayor Paula Hicks-Hudson.

Ken Gibbons, studying to get his master’s degree in biology, is frequently charged with captaining the boat. He described it as sturdier than the other boat and said the GPS system that tracks water depths is helpful in avoiding shallow areas where the boat could run aground.

His adviser, Mr. Bridgeman, said researchers’ aim is not just to publish papers but to produce “practical science for the benefit of the people of Ohio.”

Ms. Gaber called the boat an investment in advancing UT scientists’ work and maintaining their standing as leaders in water-quality research.

“These are Toledo’s shores, and the University of Toledo takes this challenge to heart. With these new resources and the government and community awareness now evident, I truly believe that this is a problem we can solve,” she said.

The new boat has not yet been named.

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